

In the Specification:

[0022] Optionally, the composition includes 0 to 10 weight percent of a tantalum removal agent that further increases the removal rate of tantalum-containing materials or enhances the selectivity of tantalum nitride to silicon carbide nitride. The solution relies upon a tantalum barrier removal agent selected from the group comprising formamidine, formamidine salts, formamidine derivatives, such as guanidine, guanidine derivatives, guanidine salts and a mixture thereof to selectively remove tantalum barrier materials. Particular effective guanidine derivatives and salts include guanidine hydrochloride, guanidine sulfate, amino-guanidine hydrochloride, guanidine acetic acid, guanidine carbonate, guanidine nitrate, formamidineformamidine, formamidinesulfinic acid, formamidine acetate and mixtures thereof. For the optional removal of tantalum and tantalum nitride, the composition most advantageously includes 0.2 to 6 weight percent tantalum removal agent.